SN-81815, ~~June 20, 1961~~

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SPACE OPERATIONS CONTROL CENTER
GODDARD SPACE FLIGHT CENTER,
6021307 1. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION.
GREENBELT, MARYLAND
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Volume 1, No. 10 SATELLITE SITUATION REPORT June 20, 1961

The following report reflects data computed and compiled by Goddard Space Flight Center, NORAD, and the Smithsonian Astrophysical Observatory as of 1200Z on June 20, 1961.

SPECIAL EVENTS:

1. The United States successfully recovered the capsule from Discoverer XXV on June 18, 1961.

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2. The objects previously given in the LUNAR and SPACE PROBES section have been given GREEK designations and will be placed in the OBJECTS IN ORBIT and DECAYED OBJECTS lists as appropriate. All objects with a trajectory period greater than 90 minutes will be included in these lists.

Harry E. Carpenter, Jr.

HARRY E. CARPENTER, JR. June 20, 1961
HEAD, Operations Control Branch

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(NASA TMX - 53124)

Code 1-5

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OBJECTS IN ORBIT

OBJECT	CODE NAME	SOURCE	LAUNCH	NODAL PERIOD	INCLI-NATION	APOGEE	PERIGEE	TRANSMITTING FREQ. (MC/S)
1958 ALPHA	EXPLORER I	US	1 FEB 58	106.6	33.21	1120	217	
1958 BETA 1	ROCKET BODY	US	17 MAR 58	138.3	34.25	2687	406	
1958 BETA 2	VANGUARD I	US	17 MAR 58	133.9	34.24	2455	404	108.022
1959 ALPHA 1	VANGUARD II	US	17 FEB 59	125.4	32.88	2052	343	
1959 ALPHA 2	ROCKET BODY	US	17 FEB 59	129.6	32.98	2277	347	
1959 DELTA	EXPLORER VI	US	7 AUG 59	POSITION UNCERTAIN				
1959 ETA	VANGUARD III	US	18 SEP 59	129.8	33.34	2318	322	
1959 MU	LUNIK I	USSR	2 JAN 59	450D	0.01	1.3177AU	0.9766AU	
1959 NU	PIONEER IV	US	3 MAR 59	398D	0.127	1.1421AU	0.9871AU	
1959 IOTA 1	EXPLORER VII	US	13 OCT 59	101.1	50.31	669	344	19.9904
1959 IOTA 2	ROCKET BODY	US	13 OCT 59	101.0	50.30	661	342	
1960 ALPHA*	PIONEER V	US	11 MAR 60	311.6D	3.35	.9931AU	.8061AU	
1960 BETA 1	ROCKET BODY	US	1 APR 60	99.1	48.41	465	429	
1960 BETA 2	TIROS I	US	1 APR 60	99.1	48.39	467	429	107.997
1960 BETA 3	NONE	US	1 APR 60	97.9	48.46	446	375	
1960 GAMMA 1	ROCKET BODY	US	13 APR 60	91.2	51.25	227	179	
1960 GAMMA 2	TRANSIT 1B	US	13 APR 60	95.0	51.28	417	229	
1960 GAMMA 4	NONE	US	13 APR 60	96.8	51.20	468	291	
1960 EPSILON 1	SPUTNIK IV	USSR	15 MAY 60	92.6	65.02	322	175	
1960 EPSILON 3	NONE	USSR	15 MAY 60	93.4	64.89	373	172	
1960 EPSILON 4	NONE	USSR	15 MAY 60	POSITION UNCERTAIN				
1960 ZETA 1	MIDAS II	US	24 MAY 60	94.3	33.00	315	297	
1960 ETA 1	TRANSIT 2A	US	22 JUN 60	101.6	66.77	649	389	162;216;108.06
1960 ETA 2	GREB	US	22 JUN 60	101.6	66.77	657	381	
1960 ETA 3	ROCKET BODY	US	22 JUN 60	101.4	66.77	643	383	
1960 IOTA 1	ECHO I	US	12 AUG 60	117.0	47.26	994	934	
1960 IOTA 2	ROCKET BODY	US	12 AUG 60	118.0	47.22	1048	932	
1960 IOTA 3	METAL OBJECT	US	12 AUG 60	118.1	47.20	1048	941	
1960 IOTA 4	METAL OBJECT	US	12 AUG 60	118.2	47.37	1045	950	
1960 IOTA 5	METAL OBJECT	US	12 AUG 60	118.3	47.20	1060	939	
1960 NU 1	COURIER 1B	US	4 OCT 60	106.9	28.30	750	604	107.9709

OBJECTS IN ORBIT (CONT'D)

OBJECT	CODE NAME	SOURCE	LAUNCH	NODAL PERIOD	INCLI-NATION	APOGEE	PERIGEE	TRANSMITTING FREQ. (MC/S)
1960 NU 2	ROCKET BODY	US	4 OCT 60	106.4	28.30	766	560	
1960 XI 1	EXPLORER VIII	US	3 NOV 60	112.6	49.98	1412	262	
1960 XI 2	ROCKET BODY	US	3 NOV 60	112.4	49.98	1409	259	
1960 XI 3	NONE	US	3 NOV 60	111.6	49.98	1372	250	
1960 XI 4	NONE	US	3 NOV 60					
1960 PI 1	TIROS II	US	23 NOV 60	98.2	48.57	461	378	108.0;108.03
1960 PI 2	ROCKET BODY	US	23 NOV 60	98.1	48.57	456	378	
1960 PI 3	NONE	US	23 NOV 60	98.1	48.57	442	394	
1960 PI 4	NONE	US	23 NOV 60	98.3	48.57	462	383	
1961 ALPHA 1	SAMOS II	US	31 JAN 61	94.9	97.40	342	295	
1961 ALPHA 2	METAL OBJECT	US	31 JAN 61	94.9	97.40	342	295	
1961 GAMMA 1*	VENUS PROBE	USSR	12 FEB 61	291D	0.581	1.0684AU	0.7104AU	
1961 DELTA 1	EXPLORER IX	US	16 FEB 61	118.2	38.86	1580	430	
1961 DELTA 2	ROCKET BODY	US	16 FEB 61	118.4	38.63	1614	395	
1961 DELTA 3	NONE	US	16 FEB 61	118.1	38.87	1590	400	
1961 DELTA 4	NONE	US	16 FEB 61	POSITION UNCERTAIN				
1961 EPSILON 1	DISCOVERER XX	US	17 FEB 61	94.7	80.91	444	176	
1961 EPSILON 4	NONE	US	17 FEB 61	95.5	80.91	427	246	
1961 ZETA	DISCOVERER XXI	US	18 FEB 61	96.6	80.74	572	154	
1961 KAPPA	EXPLORER X	US	25 MAR 61	POSITION UNCERTAIN				
1961 LAMBDA 1	DISCOVERER XXIII	US	8 APR 61	93.6	82.31	372	183	
1961 LAMBDA 2	CAPSULE	US	8 APR 61	100.3	81.94	828	126	
1961 LAMBDA 3	NONE	US	8 APR 61	97.6	81.94	675	123	
1961 NU	EXPLORER XI	US	27 APR 61	107.9	28.80	1107	302	108.058
1961 XI	DISCOVERER XXV	US	16 JUN 61	90.8	82.11	250	139	

* APHELION, PERIHELION IN ASTRONOMICAL UNITS, INCLINATION TO ECLIPTIC.

DECAYED OBJECTS

OBJECT	CODE NAME	SOURCE	LAUNCH	DECAY
1957 ALPHA 1	ROCKET BODY	USSR	4 OCT 57	1 DEC 57
1957 ALPHA 2	SPUTNIK I	USSR	4 OCT 57	EARLY JAN 58
1957 BETA	SPUTNIK II	USSR	3 NOV 57	14 APR 58
1958 GAMMA	EXPLORER III	US	26 MAR 58	28 JUN 58
1958 DELTA 1	ROCKET BODY	USSR	15 MAY 58	3 DEC 58
1958 DELTA 2	SPUTNIK III	USSR	15 MAY 58	6 APR 60
1958 EPSILON	EXPLORER IV	US	26 JUL 58	23 OCT 59
1958 ZETA	ATLAS	US	18 DEC 58	21 JAN 59
1958 ETA	PIONEER I	US	11 OCT 58	12 OCT 58
1958 THETA	PIONEER III	US	6 DEC 58	7 DEC 58
1959 BETA	DISCOVERER I	US	28 FEB 59	EARLY MAR 59
1959 GAMMA	DISCOVERER II	US	13 APR 59	26 APR 59
1959 EPSILON 1	DISCOVERER V	US	13 AUG 59	28 SEP 59
1959 EPSILON 2	CAPSULE	US	13 AUG 59	11 FEB 61
1959 ZETA	DISCOVERER VI	US	19 AUG 59	20 OCT 59
1959 THETA	LUNIK III	USSR	4 OCT 59	APR 60?
1959 KAPPA	DISCOVERER VII	US	7 NOV 59	26 NOV 59
1959 LAMBDA	DISCOVERER VIII	US	20 NOV 59	8 MAR 60
1959 XI	LUNIK II	USSR	12 SEP 59	13 SEP 59*****
1960 GAMMA 3	METAL OBJECT	US	13 APR 60	JUL 60
1960 DELTA	DISCOVERER XI	US	15 APR 60	26 APR 60
1960 EPSILON 2	ROCKET BODY	USSR	15 MAY 60	17 JUL 60
1960 EPSILON 5	NONE	USSR	15 MAY 60	SEP-OCT 60
1960 EPSILON 6	NONE	USSR	15 MAY 60	SEP-OCT 60
1960 EPSILON 7	NONE	USSR	15 MAY 60	24 SEP 60
1960 EPSILON 8	NONE	USSR	15 MAY 60	SEP-OCT 60
1960 EPSILON 9	NONE	USSR	15 MAY 60	SEP-OCT 60
1960 ZETA 2	METAL OBJECT	US	24 MAY 60	5 DEC 60
1960 THETA	DISCOVERER XIII	US	10 AUG 60	14 NOV 60
1960 THETA	CAPSULE	US	10 AUG 60	11 AUG 60**
1960 KAPPA	DISCOVERER XIV	US	18 AUG 60	16 SEP 60
1960 KAPPA	CAPSULE	US	18 AUG 60	19 AUG 60**
1960 LAMBDA 1	SPUTNIK V	USSR	19 AUG 60	20 AUG 60*
1960 LAMBDA 2	ROCKET BODY	USSR	19 AUG 60	23 SEP 60

DECAYED OBJECTS (CONT'D)

OBJECT	CODE NAME	SOURCE	LAUNCH	DECAY
1960 MU	DISCOVERER XV	US	13 SEP 60	18 OCT 60
1960 MU	CAPSULE	US	13 SEP 60	15 SEP 60***
1960 OMICRON	DISCOVERER XVII	US	12 NOV 60	29 DEC 60
1960 OMICRON	CAPSULE	US	12 NOV 60	14 NOV 60**
1960 RHO 1	SPUTNIK VI	USSR	1 DEC 60	2 DEC 60
1960 RHO 2	ROCKET BODY	USSR	1 DEC 60	2 DEC 60
1960 SIGMA	CAPSULE	US	7 DEC 60	10 DEC 60**
1960 SIGMA	DISCOVERER XVIII	US	7 DEC 60	2 APR 61
1960 TAU	DISCOVERER XIX	US	20 DEC 60	23 JAN 61
1961 BETA 1	SPUTNIK VII	USSR	4 FEB 61	26 FEB 61
1961 BETA 2	ROCKET BODY	USSR	4 FEB 61	12-13 FEB 61
1961 BETA 3	NONE	USSR	4 FEB 61	17 MAR 61
1961 GAMMA 2	ROCKET BODY	USSR	12 FEB 61	18 FEB 61
1961 GAMMA 3	SPUTNIK VIII	USSR	12 FEB 61	25 FEB 61
1961 GAMMA 4	NONE	USSR	12 FEB 61	13-18 FEB 61
1961 EPSILON 2	NONE	US	17 FEB 61	30 MAR-2 APR 61
1961 EPSILON 3	NONE	US	17 FEB 61	20 APR 61
1961 ETA	TRANSIT 3B & LOFTI	US	22 FEB 61	30 MAR 61
1961 THETA 1	SPUTNIK IX	USSR	9 MAR 61	9 MAR 61*
1961 THETA 2	NONE	USSR	9 MAR 61	10 MAR 61
1961 THETA 3	NONE	USSR	9 MAR 61	10 MAR 61
1961 IOTA 1	SPUTNIK X	USSR	25 MAR 61	25 MAR 61*
1961 IOTA 2	ROCKET BODY	USSR	25 MAR 61	26 MAR 61
1961 IOTA 3	NONE	USSR	25 MAR 61	26 MAR 61
1961 MU 1	VOSTOK	USSR	12 APR 61	12 APR 61****
1961 MU 2	ROCKET BODY	USSR	12 APR 61	16 APR 61
1961 XI	CAPSULE	US	16 JUN 61	18 JUN 61**

* USSR ANNOUNCED SUCCESSFUL RE-ENTRY AND RECOVERY
** SUCCESSFUL RE-ENTRY AND RECOVERY
*** SUCCESSFUL RE-ENTRY, BUT NOT RECOVERY
**** USSR ANNOUNCED SUCCESSFUL RE-ENTRY AND RECOVERY OF A MANNED SPACE VEHICLE.
***** HIT MOON

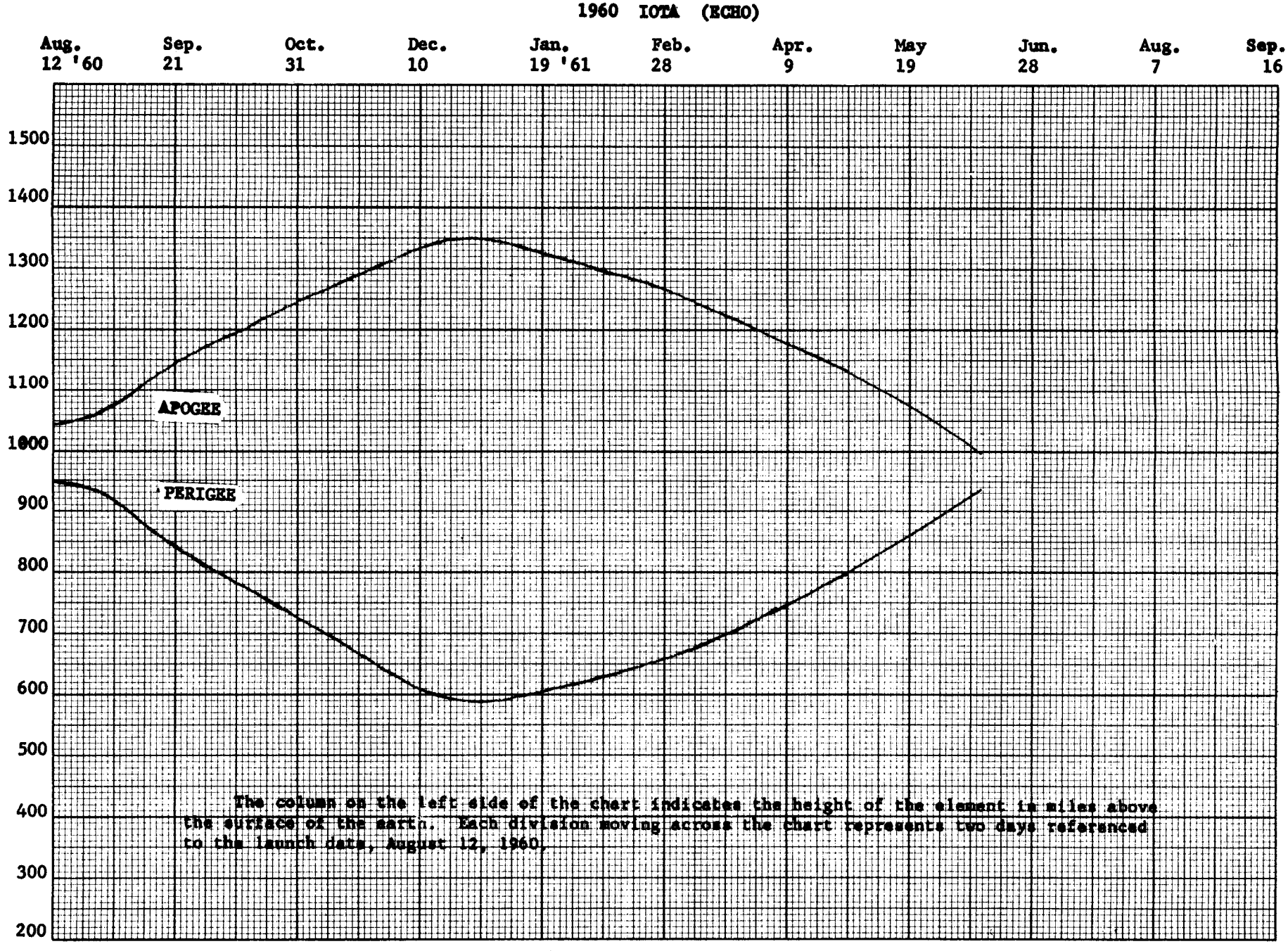

CHART I. APOGEE - PERIGEE VS. TIME